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Cebrowski Institute, Family Celebrate Contributions of "Father of Network Centric Warfare"

Wednesday, October 31, 2007

By Barbara Honegger, Senior Military Affairs Journalist

The Naval Postgraduate School Cebrowski Institute for Information Innovation and Superiority held a special symposium Oct. 9 celebrating the Institute's accomplishments and visioning its future research on emerging themes in national security.

The morning session on "Framing the Future" discussed future directions for the interdisciplinary research institute named after the late Vice Adm. Arthur Cebrowski, NPS Hall of Fame distinguished alumnus (Computer Systems Management, with distinction, 1973) and "father" of Network Centric Warfare. It kicked off with a presentation by Institute Director Prof. Peter Denning on "Mastering the Mess," followed by Deputy Director Sue Higgins on "Framing New Approaches" and Prof. Bill Murray on "Open Network Security."

What made the symposium truly special was the presence and active participation of the guests of honor — Cebrowski's life partner and wife Kathy, his older brother retired Marine Corps Capt. John Cebrowski and members of his extended family — in the afternoon celebration of Cebrowski's life and revolutionary military philosophy.

"This has truly been an incredible, wonderful and once-in-a-lifetime experience," said Cebrowski's brother John. "We're thrilled to be here and tip our hats to everyone who engineered this symposium, which has exceeded all our expectations. Kathy and I are so grateful to all of you for carrying on Art's work in his name and that his vision lives on in the work of the Institute. We thank you from the bottom of our hearts."

The elder Cebrowski remembered key turning points in his brother's early life that presaged his later career. "As a boy, Art would spend hours at the town dump shooting rats next to Teterboro Airport [in New Jersey], where we got our first exhilarating taste of air flight that led us both to become pilots; Art and I both flew in Vietnam. Another profound influence was the summers in Connecticut on our grandparents' farm, with their deep religious faith and focus on God, country and family. Art loved public speaking at our high school, which accepted, valued and nurtured individualism and gave him the confidence to be apolitical, to articulate something new and different as an intellectual leader, and to stand alone if needed to defend it. But the moment I remember most was Art transfixed by 'Victory at Sea.' From that moment on, it was inevitable he would enter the Navy."

Professor of Operations Research Wayne Hughes, who then Lt. Cebrowski worked for when they were both in the Pentagon, remembered that the future founder of DoD's Office of Force Transformation was quick to grasp key concepts.

"Art was a Hughes-trained man only in the Japanese sense of a sempai, a mentor who senses he's in the presence of a student who will go beyond anything he has to teach him," Hughes said. "And so he did. Right from the beginning, Art Cebrowski stood out as something special. He was a trailblazer and a pacesetter for us all."

"The Naval Postgraduate School has kept faith with Art Cebrowski," Hughes noted. "He was the driving force behind a major transformation of the curricula here to share core courses, and gave us the mission to design 'SeaLance' — a street fighter-like small, inshore combatant ship — for a Systems Engineering and Analysis interdisciplinary capstone research project, and of course was the guiding light and inspiration for the Cebrowski Institute."

John Garstka, now with the Office of the Undersecretary of Defense for Policy and co-author with Cebrowski on their paradigm-changing Naval Institute Proceedings article on network-centric warfare, shared highlights of their seminal work together.

"Art was a deep intellect who saw the big picture," Garstka recalled. "We met in the early 1990s, at a Christian study group — we were both Catholics, both Polish and both math majors — and then worked together to develop the concept and vision for network-centric warfare. One day I called him up and laid out the idea of a shift from platform-centric to network-centric military operations. He instantly grasped its importance and said, 'This is an idea I can run with.' With our seminal article in Proceedings, we laid down the gauntlet and began the debate on networking. Now, the debate is not on whether we need to be networked, but only how networked we need to be."

"The core of Art Cebrowski's vision was that information superiority enables a more effective and more moral use of military force," Denning explained. "He saw that the competitive advantage in future warfare would come from a superior ability to make sense of information and to act on it rapidly, and that we need to move toward clearly communicating commander's intent and allowing greater flexibility at lower levels in carrying it out, coordinating situational awareness and action at all levels through networked communications."

A number of other speakers also emphasized Cebrowski's deep religious faith as the foundation for the conscious moral dimension of his life's work.

"Admiral Cebrowski said that the military's obligation to the world is to export security as part of an integral strategy to provide a better life for those not yet integrated into the world system," said Higgins. "He also said that not sharing information at the tactical level is immoral."

"This moral dimension of everything Admiral Cebrowski did and thought was his defining signature," Higgins continued. "In his King Hall presentation, after being honored as an NPS distinguished alumnus, he said something amazing: 'If you want to serve your country, there's no better way than to have a good marriage and to love your spouse.' He lived those words. His love of family and deep belief in the family as the teacher of moral values was a foundational element of his life and work."

"This event has helped us synthesize the contributions of Art Cebrowski and further shape the direction of the Institute," Higgins noted. "It helped us illuminate shifts in military missions beyond traditional warfare to areas supporting stability, security, transition and reconstruction (SSTR) operations and the increased emphasis on humanitarian assistance and disaster relief. These changes are clearly reflected in the U.S. Navy's new Maritime Strategy, which acknowledges that prevention of warfare operations are as important as warfare itself. Art Cebrowski foresaw that

these information age and globalization trends would require the Department of Defense to co-evolve with changes in the larger world. Cebrowski Institute certificate and degree programs in globalization and network science are under development that will create venues for growing new generations of security leaders who are well grounded in the principles championed by Art Cebrowski."

In addition to the Institute, organizations represented at the symposium were the Department of Defense Office of Force Transformation, for which Cebrowski was the founding director; the World Wide Consortium for the Grid (W2COG); and the Network Centric Operations Industry Consortium (NCOIC). Cebrowski inspired retired Air Force Gen. Carl G. O'Berry, then a senior vice president with Boeing Corporation, to found the NCOIC in 2004.

"The late Admiral Art Cebrowski was the patriarch of Network-Centric Operations, which clearly had a profound impact on how we vision defense in the 21st century," said NCOIC senior staff member John Poladian. "The NCOIC was honored to participate in this inaugural symposium in honor of his life and work, and especially to witness the many personal remembrances by family members and colleagues who worked closely with him. Most importantly, we look forward to continuing the walk with our peers to achieve Art's vision."

Other morning session topics included autonomous coordination, cross sector collaboration and security, climate change as a global security issue, globalization and network science, hastily formed networks, information operations, information security, maritime domain awareness, mobile devices, positive change, semantic computation, terrorism and irregular warfare and the World Wide Consortium for the Grid.

In the early afternoon, participants toured the institute's affiliated centers and programs in state-of-the-art Glasgow Hall East, and were feted to a reception and lavish spread after the symposium adjourned.

A number of symposium speakers referred participants to Transforming Military Force: The Legacy of Arthur Cebrowski and Network Centric Warfare, a new book by James R. Blaker.

"Allison Kerr was the coordinator who helped weave the vision that Peter Denning and I had for this event into magical reality," Higgins noted.

Denning can be reached at pjd@nps.edu and Higgins at shiggins@nps.edu.

Sea Lance:

"SEA LANCE is designed as the deployment mechanism for the Expeditionary Warfare Grid proposed in the Capabilities of the Navy after Next (CNAN) study being conducted by the Naval Warfare Development Command. The system composed of the SEA LANCE and Expeditionary Grid will be capable of providing the deployability, flexibility, versatility, lethality and survivability necessary within the contested littorals to provide the operational commander with the awareness and access assurance capability lacking in the fleet of the POM."